Future of Work in Sri Lanka
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This publication was written by Vikrom Mathur, Urvashi Aneja, Ira Anjali Anwar, Aishwarya Shridhar and Natalia Sanchez of TANDEM Research, for ILO Country Office for Sri Lanka and the Maldives.

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Executive Summary

Setting the Stage

The World of Work is undergoing a major transformation. The interaction of several complex drivers — technological advancements, demographic transitions, shifting political cultures, and changing patterns of employment and production, amongst others — are heralding profound, and perhaps, unprecedented changes for the way people work and live. Most scholarly attention and public anxiety has been focused on the impact of the so-called Fourth Industrial Revolution (4IR), which typically refers to a cluster of digitally-driven technologies such as artificial intelligence, intelligent automation, and robotics, among others, in the world of work. While global narratives oscillate between optimism and pessimism, these narratives need to be re-examined in light of the varying socio-economic contexts across the global south. In many countries in the global south, earlier industrial revolutions are still unfolding. Technology trajectories and their impact on the world of work will be shaped by political and social interactions at the local level. There is currently little discussion or evidence of the impact that emerging technologies will have on the future of work in developing countries. This study attempts to fill that gap.

What impact will emerging technologies associated with 4IR have on the future world of work in Sri Lanka? Who will be the winners and losers and what can governments, industry, and citizens do to prepare for the changes that lie ahead? In particular, we focus on three issues: Automation and Job Displacement; Employment Conditions; and Inequities in the Labour Market.

Findings about the likely impact of technology on the world of work have been articulated in the form of ‘propositions’. These propositions represent the expected changes Sri Lanka will see over the next ten to fifteen years based on a review of literature, a policy lab with stakeholders and a qualitative survey.
Automation and Job Displacement

Much of the debate around emerging technologies and automation is centered around expectations of unprecedented job loss. Automation adoption in a particular sector and the consequent impact on labour will depend on a number of factors, ranging from technological feasibility, cost-effectiveness and availability of physical, digital and social infrastructure. The following propositions attempt to understand how these elements engage in the Sri Lankan context, and the subsequent possibility of job displacement.

- **Progressive technology adoption will lead to the greater commercialisation of agriculture and a subsequent reduction in labour needs.**

  Technology deployment and integration within the agricultural sector will be largely contingent on the extent of commercialisation prospects and integration within global value chains. This is likely to reduce dependency on agricultural labour, without necessarily causing widespread displacement. This is because workers are already moving out of agriculture due to rising environmental challenges and socio-economic vulnerability. However, the potential absence of alternative employment opportunities for rural labour could impact those dependent on agriculture for employment and disturb seasonal labour trends.

- **The plantation sector will need to automate various stages of the production process in order to cope with growing labour shortages and changing youth aspirations.**

  Dwindling livelihoods opportunities, along with changing youth aspirations, are leading to a decline in plantation labour. Despite persistent labour shortages, there are challenges to adopting automation technologies in the Sri Lankan context. These include the abundance of small holdings; geographical and climate concerns like topsoil erosion impacting high altitude plantations; and the delicacy of the tea picking process. Developments in these processes could lead to limited displacement, yet this is unlikely to impact overall employment in the sector.
Labour shortages in the construction sector are more likely to be overcome by incoming migrant workers rather than technology adoption.

Most advanced construction technologies require a high rate of investment; despite the rapid growth of the sector globally, technology adoption has been slow on the uptake, mainly due to high costs and complexity in implementation. While construction technologies could potentially address the sector’s labour shortage in Sri Lanka, low awareness of technological possibilities among the construction industry has slowed the uptake of modern construction methods. The lack of regulation of inward labour migration makes it much easier for construction companies to rely on investment on low-skilled labour by foreign workers, instead of investing in technology.

Growth in logistics will lead to increased labour demand, but high automation adoption will eventually lead to displacement.

Logistics is marked as a crucial sector under Sri Lanka’s National Export Strategy, highlighting its role in the growth of commerce and trade. Increasing demand and the subsequent expansion of logistics is likely to generate new employment opportunities in the coming five years. However, the adoption of advanced technologies and smart management solutions are likely to displace various middle-skilled occupations, such as supervisory and managerial positions, while also reducing the demand for permanent labour.

Technology-led displacement will occur for entry-level and mid-skill jobs in the IT, Business Process Outsourcing (BPO) and financial sectors. Access to emerging specialised jobs will require investment in advanced skills and lifelong learning.

The expansion of Sri Lanka’s IT industry, mainly oriented at international markets, is likely to increase demand for high-skilled technical jobs around data analysis and cyber security. Meanwhile, the BPO and financial sectors characterised by backend and mid-level repetitive jobs are likely to face automation-led displacement. Technological adoption by local firms, however, will be influenced by feasibility;
the availability of skilled labour along with requisite digital skills in the population; and the extent of Sri Lanka's integration in the global economy. These rapid changes in technology advancement require sustained efforts in reskilling and upskilling as the chances of job loss and redundancy are very high.

- **The growth in e-commerce will enable new markets to emerge, but traditional retail jobs will no longer provide opportunity for social mobility for low-skilled youth.**

A large portion of Sri Lanka's youth could bear the burden of job losses in the retail industry, particularly those moving out of agriculture and plantations, for whom retail is an easy stepping stone into formal work. On the contrary, a rise in e-commerce is expected to match this development through technological feasibility and low investments. This will generate labour demand for various positions, particularly in the lower-skilled levels, though it is likely to be precarious and temporary as these jobs are also at risk of automation.

- **Technology adoption will lead to job polarisation in the manufacturing sector.**

The deployment of emerging technologies, like industrial automation and artificial intelligence, is at a nascent stage in Sri Lanka's manufacturing sector. But increased labour productivity through automation could reduce dependence on permanent labour in the long run. High-skilled jobs that require complex cognitive tasks that are not frequently repeated are unlikely to get automated and automation of manual jobs that require hand-eye coordination and can be quickly taught does not make economic sense. However, middle-skilled routine jobs that can only be completed with training but do not require critical thinking are most likely to get automated in the coming decade. Niche capital and technology-intensive industries, such as food processing, will continue to see a high level of automation of physical processes. However, middle-skill level jobs across organised manufacturing will be majorly affected due to digitisation and back-end automation.
• *The public sector will be shielded from technological disruption, despite high automation potential.*

Sri Lanka’s public sector is expansive, both in terms of size and influence. In the absence of targeted efforts, it is likely not to be significantly impacted by technology disruption. In terms of e-governance strategies, success will depend on proper educational and training efforts, along with changing popular notions and perceptions around technology and bureaucracy, within and outside the government.

**Employment Conditions**

The spread of emerging technologies is changing organisational structures and employee management practices. With full-time and permanent employment being replaced by part-time and contractual work, there are less associated benefits and security for employees. In Sri Lanka, the divergence from standard forms of employment is reflected in increasing demand for flexible work, often both from employers and employees, and the platformisation of services, especially within the manufacturing sector. Much of this will work to dilute established employment standards, as the nature and culture of work is constantly altered. Changing and diverging youth aspirations, are also likely to reconfigure the dominant perceptions around suitable work and working conditions.

The four propositions below illustrate the key ways in which emerging technologies are likely to recast employment conditions, particularly looking at the nature of employment; the platformisation of work; work culture and employee management; and collective bargaining mechanisms.

• *Non-standard forms of employment will increase, particularly for low-skilled occupations.*

The ‘casualisation’ of work and non-standard forms of work are increasing. With the introduction of new technologies, employers are able to forecast and manage their labour needs in real time, as well as remotely. The impact of this is likely to be felt most acutely by low-skilled work, where both physical and cognitive tasks are repetitive and do not require extensive human intervention.
• **The platformisation of work will increase, rendering irrelevant conventional labour protection mechanisms.**

The platformisation of work has far-reaching implications, particularly in terms of restructuring the employer-employee relationship. Though the ‘gig-economy’ offers new job opportunities to part-time and casual workers, it is also likely to reveal new inefficiencies and inequities. There is concern that the platform economy will create new forms of precarious work, eroding workers’ livelihoods and rights in significant ways.

• **Technology adoption for human resource management is likely to rapidly transform work culture.**

The implementation of technological solutions — social media, smart co-working spaces, surveillance technologies, to name a few — for workforce and human resource management are impacting work cultures in different ways. For instance, remote monitoring technologies give companies the power to track their employees in real-time from any location. Responses to such applications go both ways — as big companies like Amazon are criticised for strict monitoring technologies, other doors are opened for people, like some women, who are only able to work remotely and now have the option of doing so without going into the office.

• **Collective bargaining and traditional forms of unionisation are likely to weaken with the platformisation and proliferation of non-standard work.**

Modern work environments are affecting collective bargaining practices, especially unionisation. The rise of non-standard forms of employment and outsourcing, specifically in the IT & BPO sectors, is making collective organising on the job significantly harder. Further, in the absence of shared working spaces and employers, remote platform workers face multiple difficulties in connecting with other workers within the digital, freelancing ecosystem. In this sense, digital and social media platform may also be useful for new forms of remote collectivisation.
Labour Market Inequities

Labour welfare and access to technology gains is going to be shaped by underlying socio-economic conditions and inequities. While technological disruptions and digitisation can work towards levelling the playing field, the existing social inequities are likely to get reproduced or even further entrenched with the spread of new technologies. Three propositions present how socio-cultural factors, regional, political and economic differences shape the distribution of technology gains.

- **Women are likely be able to avail new economic opportunities but the gendered division of labour will persist.**

  Though the platform economy allows women to circumvent both mobility and cultural barriers, while also enabling them to move towards equal pay opportunities, more nuanced barriers in terms of work access and engagement will remain unaddressed by emerging technologies. Employment conditions in the digital economy may not provide the same social and labour protections to its employees, many of whom are women who will continue to carry the burden of domestic work, the productive value of which is not recognized.

- **Current regional disparities are likely to be reproduced, entrenched and even exacerbated with technological adoption.**

  The disproportionate focus of investment in education, infrastructure and economy in urban areas, especially Colombo, combined with protracted civil conflict and marginalisation in the Northern and Eastern provinces have created stark regional disparities in language proficiency, digital skills, and access to decent jobs and employment. These conditions are likely to shape the distribution of technology gains across the country. Existing regional disparities will get reproduced due to unequal access to the digital economy.

- **Skilling gaps and language impediment will pose a challenge for workers in accessing decent work and technology gains.**

  Current gaps in education and skilling are one of the key challenges for Sri Lanka, as it prepares for the future world of work. A large section of Sri Lankan youth has not completed higher-education, nor skill training—soft skills, digital literacy, and English literacy. This will restrict their access to high-skill jobs that match their aspirations. Instead, youth, both educated and not, are at a standstill — equally unwilling to settle for low-skilled, manual jobs even as they are unqualified for the private sectors' quickly evolving work landscape.
**Way Forward**

Decisive policy making and action is needed to confront a future where technology may not lead to progress and development for all. Therefore, intervention is needed to shape the Future of Work so that it may be equitable and inclusive. Our study proposes a way forward through three Bright Spots and four Policy Portfolios. Bright spots are sectors that are not easily automable or those in which technological innovation can open new avenues for job creation. Policy Portfolios represent a menu of strategies which can enable decent work.
BRIGHT SPOTS

- The care economy could provide decent work opportunities, and is likely to be less vulnerable to automation.

Service jobs that require affective labour, specifically in medical, geriatric and childcare industries, are unlikely to be entirely automated. Any labour involving a personal and emotional connection between the service provider and the receiver will be highly valued in the future. This is particularly important for Sri Lanka in the context of a large aging population.

- Demand for sustainable products and services could generate new employment opportunities.

Consumer awareness is driving a demand for more sustainable products and services. The strongest potential for sustainability-led opportunities lies in agriculture, renewable energy, waste management and tourism. The move towards sustainable employment opportunities could also open up avenues for women to participate in the workforce.

- Employment in tourism is likely to grow, driven by the access of individual service providers to digital platforms.

Tourism-led self-employment through digital platforms is integral as it is likely to create direct and indirect employment in allied industries such as housing, transport, restaurants, etc. While offering dispersed opportunities for work across Sri Lanka, digital platforms are playing a crucial role in decentralising access to work in the tourism sector by enabling small-scale and informal establishments outside the formal hotel industry.
Four Policy Portfolios

Over the next decade, Sri Lanka’s growth trajectory will undoubtedly see technologisation across the economy in varying degrees. Sri Lanka’s workforce will not be immune to the vast technological shifts underway globally, even if the speed and intensity of their permeation into Sri Lanka’s unique socio-economic context occurs differently than other countries. Recent policy stances have specific focus on attracting high-end export-oriented manufacturing and services; FDI; and promoting innovation, entrepreneurship and the digital economy at a national, strategic level. Policy initiatives like concessionary loan schemes and matching grant schemes have been deployed to enable enterprises upgrade, adopt technology, and improve products and processes. All these dynamics will shape an economy over the next two decades that is more technology-oriented than it is today.

Sri Lanka is thus in need of a portfolio of policies and strategies to gainfully shape the world of work in the country. Policy portfolios have been articulated across four domains. First, education and skilling will need to provide lifelong learning opportunities and build capacities for availing opportunities in new sectors and launching entrepreneurial ventures. Secondly, technology and innovation can be used to shape technological trajectories that develop applications to serve those that run the risk of being left behind and accelerate employment generation in new sectors. Thirdly, enhanced labour protection will provide new frameworks to better protect workers as the number of contracted, self-employed workers increase and employment relationships transform through platformisation of work. Finally, strategies for redistribution can ensure technology gains are distributed more widely into society through Government policies and stronger universal safety nets and new forms of employee compensations in firms. The portfolios listed below represent an indicative list for future research and exploration, recognizing that each will pose their unique set of challenges and trade-offs.

1. Education and Skilling

Promote digital skilling programs and strengthen foundational skills.

As the ILO (2018) has rightly noted, ‘one of the most fundamental challenges to a just jobs transition consists in closing the critical gaps in skills and education requirements that rapid technological change creates’, and further, ‘traditional education and training systems have to undergo major adjustments to make the most of the evolving world of work’. In the future of a digital economy, there lies a critical window of opportunity for Sri Lankan youth entering the workforce over the next decade. Digital skilling interventions will need to go beyond technical skills to enable adaptiveness among workers, but skilling cannot act as a substitute for education. Foundational knowledge for problem solving will be integral to the life-long learnability and adaptive capacity of Sri Lanka’s ageing workforce. Soft skills will be progressively relevant; for without the proper foundations of reading, writing, and arithmetic, a future of high-level comprehension of STEM, coding and digital skills cannot be reached.
Foster education and skilling programs to address regional gaps. There are stark regional disparities in education and skills attainment, as are differences based on ethnicity and language in Sri Lanka. In order to identify and confront education and skilling gaps, targeted policy measures are needed in lagging regions, particularly amongst women and other marginalised groups.

The regional disparities in English language proficiency and digital literacy need social focus. Though an initiative is required to make digital platforms accessible in local languages, there is also a need to enhance English language proficiency, considering the substantial rural-urban gaps. Similarly, Sri Lanka needs to train teachers in rural provinces to use digital technologies as a tool in teaching — this should be in addition to a national-level adoption of digital literacy throughout the education sector. To accelerate this, partnerships with international organisations would be useful, with recent initiatives by Sarvodaya Fusion (a Sri Lankan technology-inclusion NGO) with CISCO and Microsoft serving as good examples.

Further, national campaigns to promote family counselling could help confront existing socio-cultural norms around economic agency, thereby creating learning spaces for women and other marginalised groups who, otherwise, do not have access to traditional centres.

Focus efforts into skilling for jobs in Data Science and Cyber Security. In order to stay competitive in the global economy, professional and technical graduates will be expected to adapt with the development of more advanced IT jobs. Education and skilling should match Sri Lanka’s quickly-evolving landscape, where routine jobs in the IT sector are increasingly facing automation. Such action has been taken in India: the All India Council for Technical Education (AICTE) is revamping technical courses by adding AI, machine learning, robotics, data-crunching, and analysis to syllabi.

Sri Lanka should also look at countries like South Korea, Germany, Singapore and Japan — all of which top the “Automation Readiness Index”— to understand how to best focus efforts into anticipatory curriculum reform and lifelong learning and occupational training.

2. Technology and Innovation

Implement a Data Governance plan.

Collection, storage, sharing and ownership of data needs to be effectively governed to facilitate digital infrastructure. In Sri Lanka, stakeholders have identified substantial gaps in digital consumer and data protection regulations. There are currently no laws that govern data in Sri Lanka, but the Information Communication Technology Agency has efforts underway to pursue a data governance policy ‘based on the adoption of a Data Protection Code of Practice’ and embed that as a regulation under the existing Information Communication Technology Act of 2003.
Encourage Technology Adoption and Spurring Entrepreneurship.

Technology adoption and automation could help generate new opportunities for employing displaced labour as it addresses labour shortages, resulting loss of competitiveness, and other areas where work is labourious and no longer attractive for youth e.g. agriculture, estate plantations.

In the private sector, the government should encourage the adoption of new technologies and promote their widespread usage by, for instance, targeted grants for enterprise innovation, reduction of border taxes for technology imports, liberalizing digital payments and encouraging API integration. More broadly, promoting information and market platforms, for workers, entrepreneurs, farmers, would encourage tech adoption and spur new forms of entrepreneurship.

There is currently limited discussion about adopting AI at a national level; however, the IT industry has taken some initiatives in this regard. Last year, the IT industry body SLASSCOM held the first national conference on AI – the ‘AI Asia Summit’. Moreover, a flagship data science training programme has been newly launched at the University of Colombo's Computing Faculty.

3. Labour Protection

Revise Labour Protection plans.

Technological developments are likely to lead to new business models e.g. non-standard forms of work, which will require labour protection and a revision of working conditions. In addition, digital technologies can potentially offer workers a virtual space for information...
sharing, grievance redressal, and new ways of collective bargaining; thus allowing the platform economy to provide opportunities in formalizing the unorganised and informal sector in Sri Lanka.

New forms of collectivising and avenues to promote collective bargaining are also made possible through social media, especially for groups like drivers in location-based work. Alongside this, there would be a need of capacity building for employers’ organisations and unions on subjects relevant to technology and future of work.

Global decline in the strength of workers’ organisations and collective bargaining will be a major factor contributing to rising inequality. Public policies must work towards addressing this by promoting collective representation and social dialogue - this will work towards the subversion of the dominance of larger economic enterprises in determining economic policy. Labour protection laws need to be revised and re-established with worker needs at the forefront.

Regulate the platform economy.

As the platform economy in Sri Lanka grows, so will employment opportunities, particularly in informal work but also as new forms of social mobility for educated youth in urban areas. This, in turn, would facilitate a degree of formality for platform workers through registration and use of formal banking.

However, platforms can also lead to the dismantling of traditional employer-employee relations and the dissolution of workers’ rights. Along these lines, constant and reflexive regulation of the platform economy will be mandatory, along with the exploration of new, collaborative platform models with a focus on worker welfare.

Such initiatives can be seen in the Motor Vehicles Bill in India, which proposed an amendment to Section 93 of the Motor Vehicles Act of 1988 to enforce licensing for ride-sharing platforms like Ola and Uber, as well as state-defined rates and guidelines. Loconomics and Stocksy are other examples of co-operative models for worker and state-owned platforms, where value that is created is treated as a public good.

It is important to look separately at location-based platforms (like ride-sharing, food delivery services, and e-commerce) which can comply with local laws, versus web-based platforms (like remote freelancing work) which may adhere to international practices, based on the location of the employer. To govern such web-based digital labour, Sri Lanka will have to adopt global initiatives to establish transnational policies.

4. Redistribution

Strengthen social security provisions.

As the platform economy forges new employment relationships, regular work is being replaced by new forms of self-employment and contractual work. Social security policies — e.g. access to healthcare, pension, unemployment insurance, and maternity leave — therefore need to adapt to this changing environment. ILO proposes that countries should initiate minimum social security guarantees nationally, especially as the world of work undergoes tech-driven transformations.
In Sri Lanka there is no universal unemployment insurance. Stakeholders should consider an unemployment fund that supports workers temporarily when they are out of work or looking for work on account of technological disruption. This is seen in EU policies that provide special protection to platform economy workers, in lieu of administrative provisions for part-time, fixed-term and agency workers.

Through cash-transfer and work-guarantee programs for the informal sector and those engaged in subsistence farming, social security plans can assure basic income security — Sri Lanka can look at India’s Mahatma Gandhi National Rural Employment Guarantee and other programmes as enacted in South Africa for model assessment.

*Redistribute Technology Gains.*

The benefits of technology-driven growth will accrue more to capital than to labour—hitting mid-level jobs like retail and accounting the most. This needs to be addressed through both traditional and novel redistributive methods. There are several global discussions surrounding redistribution of technology gains that Sri Lanka can draw from.

While tech giants like Bill Gates propose a ‘robot tax’ - a tax that recognises robots as ‘electronic persons’, the EU rejected this policy to tax robots as a worker would be taxed. The draft motion in EU parliament argues that, for tax purposes, organisations should declare savings made in social security contributions by utilising robotics.

Another proposal is that of the Vice Chairman of India’s NITI Aayog: a ‘labour utilisation fund’ could encourage skilling and hiring practices by providing labour subsidies to firms.